



**LICKING VALLEY**  
RURAL ELECTRIC COOPERATIVE CORPORATION  
P. O. Box 605 • 271 Main Street  
West Liberty, KY 41472-0605  
(606) 743-3179

*Cape # 2006-00174*

**RECEIVED**

March 19, 2014

MAR 21 2014

PUBLIC SERVICE  
COMMISSION

Director of Engineering  
Public Service Commission  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, KY 40602

Dear Sir:

Enclosed you will find Licking Valley Rural Electric Cooperative Corporation's Electric Distribution Utility Annual Reliability Report for the year ending 2013.

If additional information is needed, please let us know.

Sincerely,

*Tommy Conley*  
Tommy Conley

Superintendent of Operations

**RECEIVED**

**MAR 21 2014**

**PUBLIC SERVICE  
COMMISSION**

**Report prepared for:**

**Licking Valley Rural Electric Cooperative Corporation**

**Prepared by:**

**Oneida Haney, Office Supervisor**

**[ohaney@lvrecc.com](mailto:ohaney@lvrecc.com)**

**606-743-3179**

## **2013 Annual Reliability Report**

## Major Event Days

T Med                    .7493.2692

First Date Used to Determine T MED---    January 16, 2013

Last Date Used to Determine T MED---    December 22, 2013

Number of MED in Report Year---    43

## System Reliability Information and Results

### System-wide Information

Total Customers	17,277	Total Circuits	36
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### Excluding MED

Licking Valley RECC only has a 2 year average

2 Year Average	Reporting Year
Saidi 5892.1788	5451.0532
Saifi 56.2008	51.6056

### Including MED

2 year Average	Reporting Year
Saidi 14518.1970	12944.3224
Saifi 82.2876	84.0790

SAIDI and SAIFI for every circuit---excluding MED's

					2 Year Average	
	SAIDI 2013	SAIFI 2013	SAIDI 2012	SAIFI 2012	SAIDI	SAIFI
<b>Helechawa Substation</b>						
Hazel Green Circuit	209.9984	3.2814	161.1261	2.3531	185.5622	2.8172
Cannel City Circuit	655.319	2.6988	209.7148	1.431	329.2641	2.1451
Lee City Circuit	169.3147	1.5654	339.6134	3.9285	254.414	2.747
<b>Hot Mix Substation</b>						
Elk Fork Circuit	159.0446	2.2973	368.0402	3.8937	263.5424	3.0955
Liberty Road Circuit	238.7671	2.8494	10.1352	0.1757	124.4511	1.5125
519 Circuit	53.2608	0.7391	192.3217	1.2721	122.7912	1.0056
Wrigley Circuit	51.8837	0.7105	125.6658	2.6885	88.7747	1.6995
<b>Campton Substation</b>						
Pine Ridge Circuit	62.6224	0.4929	164.7603	1.618	113.6913	1.0554
Stillwater Circuit	88.4797	0.874	241.2174	0.5427	164.8485	0.7083
Vortex Circuit	551.1349	5.8529	60.5624	0.988	305.8486	3.4204
Elkins Circuit	98.9338	0.5366	62.5182	0.5475	80.726	0.542
<b>Maytown Substation</b>						
Ezel Circuit	113.1528	1.1263	89.3542	0.5555	101.2535	0.8409
Hazel Green Circuit	32.7014	0.3044	50.2346	0.7381	41.468	0.5212
Pomeroyton Circuit	74.0625	0.618	128.9309	1.1541	101.4967	0.886
<b>Zachariah Substation</b>						
Leeco Circuit	79.2519	0.9186	177.5446	0.6701	128.3982	0.7943
Pine Ridge Circuit	50.0656	0.4538	346.0199	2.5173	198.0427	1.4855
<b>Oakdale Substation</b>						
Athol Circuit	275.5752	2.9824	63.4782	0.2782	169.5267	1.6303
Highland Circuit	39.0838	0.2245	99.7991	0.6539	69.4414	0.4392
Elkatawa Circuit	473.4478	2.6718	156.5783	2	315.013	1.947
War Creek	59.5848	0.599	607.1733	2.8906	333.379	1.7448
<b>Index Substation</b>						
Caney Circuit	48.9058	0.6411	35.0763	0.7259	41.991	0.6835
Index Circuit	10.2208	0.1522	105.5734	1.1794	57.8971	0.6658
Mize Circuit	249.1704	2.1503	203.9666	2.053	226.5685	2.1016
Prison Circuit	375	2.5			375	2.5

**Crockett Substation**

Lenox Circuit	32.3295	0.8022	165.7377	0.3114	99.0336	0.5568
Williams Creek Circuit	217.3212	1.5514	60.099	0.6546	138.7101	1.103
Crockett Circuit	54.2185	0.5584	422.1698	3.5548	238.1941	2.0566
School Circuit	7.8261	0.0435	46.9565	0.0435	27.3913	0.0435

**Maggard Substation**

Rockhouse Circuit	37.9821	0.4392	19.8257	0.2056	28.9039	0.3224
Flat Fork Circuit	127.722	1.0109	123.4014	0.9032	125.5617	0.957
Lick Creek Circuit	213.6774	2.2354	108.6779	1.3462	161.1776	1.7908

**Sublett Substation**

Carver Circuit	51.3213	0.4014	74.6174	1.0022	62.9693	0.7018
Lakeville Circuit	181.0622	2.232	150.7639	1.8702	165.913	2.0511
Gunlock Circuit	149.5475	1.8941	177.2093	1.1279	163.3784	1.511
Gun Creek Circuit	95.6327	1.0821	984.5399	15.6993	540.0863	8.3907

## Circuit Reporting

### Circuit #1

Substation #3, Helechawa Substation, located on Rt 205 in Wolfe County

Circuit # 2, Cannel City Circuit; this circuit serves areas of Adele, and Helechawa in Wolfe County; Cannel City, Caney, Head of Stacy Fork in Morgan County; Johnson Fork, Cow Creek, and Harper in Magoffin County.

This circuit has approximately 107 miles of line, and serves approximately 890 consumers.

75% of circuit was cut out in 2013.

Causes and percentages for this circuit :

Cause	%SAIFI	%SAIDI
Prearranged Maintenance	7%	9%
Right-of-Way	88%	84%
Unknown	1%	1%
Equip. Failure	1%	1%
Consumer Caused	2%	4%
Animals	1%	1%

Circuit 2 Year Average SAIDI---329.2641      Reporting Year 2013 SAIDI –655.3190

Circuit 2 Year Average SAIFI---2.1451      Reporting Year 2013 SAIFI—2.6988

Due to the circuit being cut out should improve outage time in 2014.

## Circuit Reporting

### Circuit #2

Substation # 7, Campton Substation, located on Rt 15 in Campton, Wolfe Co.

Circuit # 3, Vortex Circuit; this circuit serves areas of Rt. 15, Flat Mary, Bethany, Cave Br, Hunting Fork, and Spring Branch areas of Wolfe Co.

This circuit has approximately 83 miles of line and serves approximately 585 consumers.

This circuit is currently being cut out, should be completed by Fall 2014.

Causes and percentages for this circuit:

Cause	% SAIFI	%SAIDI
Prearranged Maintenance	25%	25%
Right-of-Way	40%	25%
Unknown	17%	21%
Equip. Failure	17%	25%
Consumer Caused	1%	3%

Circuit 2 Year Average SAIDI---305.8486    Reporting Year 2013 SAIDI—551.1349

Circuit 2 Year Average SAIFI---3.4204    Reporting Year 2013 SAIFI—5.8529

Due to circuit being cut out now, this should improve the outage time for 2014.

## Circuit Reporting

### Circuit # 3

Substation # 2, Oakdale Substation is located on Rt 52 at Oakdale in Breathitt Co.

Circuit # 3, Elkatawa Circuit; this circuit serves areas of Elkatawa, Cane Creek, Wolverine and Five Mile, in Breathitt Co.

This circuit has approximately 58 miles of line and serves approximately 394 consumers.

Last trim on this circuit was in 2009

Causes and percentages for this circuit:

Cause	%SAIFI	%SAIDI
Prearranged Maintenance	2%	1%
Right-of-Way	43%	37%
Unknown	24%	11%
Equip. Failure	30%	50%
Consumer Caused	1%	1%

Circuit 2 Year Average SAIDI---315.0130    Reporting Year 2013—473.4478

Circuit 2 Year Average SAIFI---1.9470    Reporting Year 2013—2.6718

Cutting hot spots now and installing more cut-outs on line.

## Circuit Reporting

### Circuit # 4

Substation # 4, Hot Mix Substation, located between Rt 7 and Rt 519 in Morgan County.

Circuit # 5, Liberty Road Circuit; this circuit serves areas of Rt 7 and Liberty Road area of Morgan Co.

This circuit has approximately 12 miles of line and serves approximately 75 consumers.

Last circuit trim was in 2013

Causes and percentages for this circuit:

Cause	% SAIFI	% SAIDI
Prearranged Maintenance	6%	15%
Right-of-Way	15%	12%
Unknown	43%	28%
Equipment Failure	1%	2%
Consumer Causes	34%	43%

Circuit 2 Year Average SAIDI---124.4511      Reporting Year 2013 SAIDI—238.7671

Circuit 2 Year Average SAIFI---1.5125      Reporting Year 2013 SAIFI—2.8494

By replacing the old copper wire with aluminum should help with outage time in 2014.

## Circuit Reporting

### Circuit # 5

Substation # 2, Oakdale Substation is located on Rt 52 at Oakdale in Breathitt Co.

Circuit # 1, Athol Circuit; this circuit serves areas of Oakdale, Athol, and Copebranch in Breathitt Co.

This circuit has approximately 22 miles of line and serves approximately 113 consumers.

Last circuit trim was in 2009

Causes and percentages for this circuit:

Cause	% SAIFI	%SAIDI
Prearranged Maintenance	33%	3%
Right-of-Way	4%	9%
Unknown	1%	1%
Equip. Failure	31%	25%
Consumer Caused	31%	62%

Circuit 2 Year Average SAIDI---169.5267      Reporting Year 2013 SAIDI—275.5752

Circuit 2 Year Average SAIFI---1.6303      Reporting Year 2013 SAIFI—2.9824

Continue to do public awareness through media and print, to educate the public on the dangers of getting near power lines.

## Circuit Reporting

### Circuit # 6

Substation # 10, Crockett Substation, located on Hwy 172 in Morgan County.

Circuit # 2, Williams Creek Circuit; this circuit serves areas of Williams Creek, Coffee Creek, Silverhill, and Sandlick areas of Morgan Co.

This circuit has approximately 67 miles of line and serves approximately 495 consumers.

Last circuit trim was in 2010

Causes and percentages for this circuit:

Causes	% SAIFI	% SAIDI
Prearranged Maintenance	9%	3%
Right-of-Way	44%	52%
Unknown	34%	26%
Line Down	5%	3%
Equipment Failure	1%	1%
Consumer Causes	6%	15%

Circuit 2 Year Average SAIDI---138.7101      Reporting Year 2013 SAIDI—217.3212

Circuit 2 Year Average SAIFI---1.1030      Reporting Year 2013 SAIFI—1.5514

Continue to cut hot spots until time for circuit to be completely cut out.

## Circuit Reporting

### Circuit # 7

Substation # 5, Maggard Substation, located on Rt 1081, Coon Creek, Magoffin Co.

Circuit # 3, Lick Creek Circuit; this circuit serves areas of Coon Creek, Bloomington, Pricey, and Lick Creek in Magoffin Co.

This circuit has approximately 49 miles of line and serves approximately 620 consumers.

This circuit was cut out in 2013, finished this circuit January 2014

Causes and percentages for this circuit:

Causes	% SAIFI	% SAIDI
Prearranged Maintenance	26%	15%
Right-of-Way	24%	27%
Unknown	36%	30%
Line Down	6%	19%
Equip. Failure	3%	4%
Consumer Caused	2%	1%
Animals	2%	2%

Circuit 2 Year Average SAIDI---161.1776      Reporting Year 2013 SAIDI—213.6774

Circuit 2 Year Average SAIFI---1.7908      Reporting Year 2013 SAIFI—2.2354

We feel by cutting this circuit out last year, this will improve our outage time for 2014.

## Circuit Reporting

### Circuit # 8

Substation # 3, Helechawa Substation, located on RT 205 in Wolfe Co.

Circuit # 1, Hazel Green Circuit; this circuit serves areas of Helechawa, Hazel Green, Red River, and Lacy Creek, in Wolfe Co.

This circuit has approximately 84 miles of line and serves approximately 675 consumers.

Last circuit trim was in 2011

Causes and percentages for this circuit:

Causes	% SAIFI	%SAIDI
Prearranged Maintenance	7%	9%
Right-of-Way	88%	84%
Unknown	1%	1%
Equip. Failure	1%	1%
Consumer Caused	2%	4%
Animals	1%	1%

Circuit 2 Year Average SAIDI---185.5622      Reporting Year 2013 SAIDI—209.9984

Circuit 2 Year Average SAIFI---2.8172      Reporting Year 2013 SAIF—3.2814

Installing breaker on part of this line; upgrading lines from copper to aluminum, and continue to work on right-of-way issues.

## Circuit Reporting

### Circuit # 9

Substation # 8, Index Substation, located on 191 at Index in Morgan Co.

Circuit # 3, Mize Circuit; this circuit serves areas of Greear, Buskirk, Mize and Woodsbend in Morgan Co.

This circuit has approximately 77miles of line and serves approximately 645 consumers.

Last circuit trim was 2011.

Causes and percentages for this circuit:

Cause	% SAIFI	% SAIDI
Prearranged Maintenance	28%	19%
Right-of-Way	2%	3%
Unknown	2%	1%
Line Down	5%	5%
Equip. Failure	60%	68%
Consumer Caused	2%	3%
Animals	1%	1%

Circuit 2 Year Average SAIDI---226.5685      Reporting Year 2013 SAIDI—249.1704

Circuit 2 Year Average SAIFI---2.1016      Reporting Year 2013—2.1503

By changing out the old copper to aluminum, we hope to cut down on outages.

## Circuit Reporting

### Circuit # 10

Substation # 7, Campton Substation, located on Rt 15 in Campton, Wolfe Co.

Circuit # 4, Elkins Road Circuit; this circuit serves areas of Elkins Road, Mullins Point, Bear Pen, and Sandy Ridge in Wolfe Co.

This circuit has approximately 35 miles of line and serves approximately 136 consumers.

Last circuit trim was 2008.

Causes and percentages for this circuit:

Cause	% SAIFI	% SAIDI
Prearranged Maintenance	10%	1%
Right-of-Way	40%	10%
Unknown	44%	85%
Equip. Failure	1%	1%
Consumer Caused	1%	1%
Animals	4%	2%

Circuit 2 Year Average SAIDI---80.7260      Reporting Year 2013 SAIDI—98.9338

Circuit 2 Year Average SAIFI---.5420      Reporting Year 2013 SAIFI--.5366

This circuit is scheduled for right-of-way clearing this year. This should help on our Right-of-Way problem and possible the unknown cause.

## Circuit Reporting

### Circuit # 11

Substation # 6, Sublett Substation, located on Rt 7 Near Royalton, Magoffin Co.

Circuit # 2, Lakeville Circuit; this circuit serves areas of Salyer Br., Mason Creek, and Lakeville Road in Magoffin Co.

This circuit has approximately 55 miles of line and serves approximately 465 consumers.

Last circuit trim was 2012

Causes and percentages for this circuit:

Causes	% SAIFI	%SAIDI
Prearranged Maintenance	14%	9%
Right-of-Way	14%	9%
Unknown	70%	80%
Consumer Caused	1%	1%
Animals	1%	1%

Circuit 2 Year Average SAIDI---165.9130    Reporting Year 2013 SAIDI—181.0622

Circuit 2 Year Average SAIFI---2.0511    Reporting Year 2013 SAIFI—2.2320

Check more closely on outages and try to figure out the unknown causes on this circuit.

## Circuit Reporting

### Circuit # 12

Substation # 9, Maytown Substation, located on Rt 1010 in Morgan Co.

Circuit # 1, Ezel Circuit; this circuit serves areas of Blackwater, Greasy Creek, Ezel, Toms Branch and Kellacy of Morgan Co.

This circuit has approximately 97 miles of line and serves approximately 432 consumers.

Last circuit trim was 2010.

Causes and percentages for this circuit:

Cause	% SAIFI	%SAIDI
Prearranged Maintenance	13%	5%
Right-of-Way	4%	4%
Unknown	2%	4%
Line Down	7%	15%
Equip. Failure	7%	8%
Consumer Caused	65%	62%
Animals	2%	2%

Circuit 2 Year Average SAIDI---101.2535      Reporting Year 2013 SAIDI—113.1528

Circuit 2 Year Average SAIFI---.8409      Reporting Year 2013 SAIFI—1.1263

Try to do a better job in educating the public on the dangers of getting near the power lines.

## Circuit Reporting

### Circuit # 13

Substation # 5, Maggard Substation, located on 1081, Coon Creek, Magoffin Co.

Circuit # 1, Rockhouse Circuit; this circuit serves areas of Improvement Fork, Rockhouse and Logville of Magoffin Co.

This circuit has approximately 32 miles of line and serves approximately 280 consumers.

Last circuit trim was in 2013.

Causes and percentages for this circuit:

Cause	% SAIFI	%SAIDI
Prearranged Maintenance	80%	72%
Right-of-Way	12%	10%
Line Down	4%	15%
Animals	4%	3%

Circuit 2 Year Average SAIDI---28.9039      Reporting Year 2013 SAIDI—37.9821

Circuit 2 Year Average SAIFI---.3224      Reporting Year 2013 SAIFI--.4392

The reason the prearranged maintenance was so high is because we did a lot of upgrading the lines and poles. Hopefully this will decrease our outage time.

## Circuit Reporting

### Circuit # 14

Substation # 8, Index Substation, located on Rt 191 at Index in Morgan Co.

Circuit # 1, Caney Circuit; this circuit serves areas of Malone, Stacy Fork, Caney, and Vance Fork in Morgan County.

This circuit has approximately 37 miles of line and serves approximately 395 consumers.

Last circuit trim was in 2010.

Causes and percentages for this circuit:

Causes	% SAIFI	%SAIDI
Prearranged Maintenance	54%	38%
Right-of-Way	4%	3%
Unknown	8%	7%
Consumer Caused	31%	50%
Animals	3%	2%

Circuit 2 Year Average SAIDI---41.9910      Reporting Year 2013—48.9058

Circuit 2 Year Average SAIFI---.6835      Reporting Year 2013--.6411

This prearranged maintenance was to upgrade the lines and poles. Hopefully this will decrease future outage time.

## Circuit Reporting

### Circuit # 15

Substation # 5, Maggard Substation, located on Rt 1081, Coon Creek Magoffin Co.

Circuit # 2, Flat Fork Circuit; this circuit serves areas of Coon Creek, Mud Lick, Flat Fork, Mine Fort, and Litteral of Magoffin Co.

This circuit has approximately 43 miles of line and serves approximately 540 consumers.

This circuit was cut out in 2013.

Causes and percentages for this circuit:

Cause	% SAIFI	% SAIDI
Prearranged Maintenance	4%	3%
Right-of-Way	58%	53%
Unknown	4%	4%
Line Down	9%	19%
Equip. Failure	5%	6%
Consumer Caused	18%	13%
Animals	2%	2%

Circuit 2 Year Average SAIDI---125.5617      Reporting Year 2013—127.7220

Circuit 2 Year Average SAIFI---.9570      Reporting Year 2013—1.0109

By this circuit being cut out in 2013, this should correct right-of-way problems in 2014.

## Vegetation Management Plan Review

Licking Valley Rural Electric Cooperative Corporation has an aggressive vegetation program and has contracted B M C Contracting to address our cooperatives right-of-way requirements. Our cooperative likes to maintain a forty-foot ground to sky right-of-way clearance on new and existing accounts; however some variety in right-of-way clearing is based on geography/terrain, easement widths, line voltages and property owner issues. LVRECC is currently on a 5 year rotation cycle. One crew runs a bucket truck and a chipper and their main concern are consumer requests and hot spots. In addition to B M C, the cooperative has a bush hog that is used for right-of-way clearing when not in use by construction or maintenance crews. The cooperative has a right-of-way foreman that oversees B M C Contracting crews. W Y N Contracting provides a crew that concentrates on Herbicide Treatment, primarily in the months of May until August or September.